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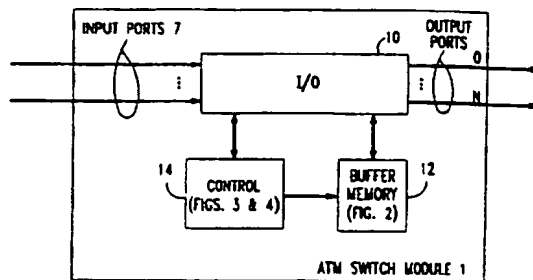
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(54) Arrangement for controlling shared-buffer-memory overflow in a multi-priority environment

(57) A shared-buffer-memory-based ATM switching module (1) used with ATM cells having a multiplicity of priorities has a plurality of queues for each output port (O-N), one for each cell priority, and handles buffer overflow in a manner fair to all output ports. It initially allows output-port queues to completely consume the buffer memory (12). Thereafter, when an additional incoming cell (on 7) is received for which there is no room in the buffer memory, the lengths of all of the queues of each output port are individually summed and compared to determine which port has the greatest number of buffered cells. A buffered ATM cell is discarded from the lowest-priority non-empty queue of that port. The incoming cell is then stored in the memory space vacated by the discarded cell.

FIG. 1



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EUROPEAN SEARCH REPORT

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. CL.5)
D,Y	IEEE ICC 89, JUNE 11 - 14, 1989, vol. 1 OF 3, 11 June 1989, BOSTON U.S.A., pages 118-122, XP000075449 HIROSHI KUWAHARA ET AL: "A SHARED BUFFER MEMORY SWITCH FOR AN ATM EXCHANGE" * sections 3.1-3.2 *	1-7	H04L12/56 H04Q11/04
Y	US 4 849 968 A (TURNER JONATHAN S) 18 July 1989 * column 1, line 13 - line 21 * * column 2, line 39 - column 3, line 6 * * column 6, line 53 - column 7, line 26 * * column 7, line 48 - column 8, line 11 * * claim 12 *	1-7	
D,A	WO 91 04624 A (PLESSEY CO LTD) 4 April 1991 * claim 7 *	1-7	
			TECHNICAL FIELDS SEARCHED (Int. CL.5)
			H04L
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 16 January 1997	Examiner Gregori, S
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons A : member of the same patent family, corresponding document</p>			

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